

LIC2019 program		
Tue. Apr 23, 2019		
[LIC1] Opening lectures Tue. Apr 23, 2019 1:30 PM - 3:00 PM JST Pacifco Yokohama Conference Center(302) Session Chair: Jun Hayashi (Kyoto Univ.)		
1:30 PM - 2:00 PM JST		
	Opening Remarks Takunori Taira ¹ 1. RIKEN Spring-8 center / Institute for Molecular Science, 2. OSA, 3. SPIE	
2:00 PM - 2:30 PM JST		
LIC1-1	Commemorative lecture for the excellent business award from NEDO: 808 nm range high power VCSEL array and fiber coupled module for laser ignition system on gas co-generation engines. *Kazuma Izumiya ¹ , Nobuyuki Arari ¹ , Keisuke Ikeda ¹ , Yuzuru Sasaki ¹ , Yosuke Abe ¹ , Katsunori Hanaoka ¹ , Masaki Hiroi ¹ , Toshiyuki Ikeoi ¹ , Naoto Jikutani ¹ , Tsuyoshi Suzudo ¹ 1.RICOH Co., LTD. R&D Center	
2:30 PM - 3:00 PM JST		
LIC1-2	Laser Ignition Experiment for Aerospace Combustor (Invited) Mitsunori Itoh ¹ , *Yoshiki Matsuura ² , Takahisa Nagao ¹ , Jun Izawa ¹ 1.IHI Corporation, 2.IHI Aerospace	
<Break> 3:00 PM - 3:30 PM JST		
[LIC2] Laser acceleration and THz generation Tue. Apr 23, 2019 3:30 PM - 5:30 PM JST Pacifco Yokohama Conference Center(302) Session Chair: Takunori Taira (RIKEN)		
3:30 PM - 4:00 PM JST		
LIC2-1	Development of repeatable GeV-class laser wakefield accelerator under the MIRAI program (Invited) *Tomonao Hosokai ^{1,2} 1.Osaka University, 2.RIKEN SPring-8	
4:00 PM - 4:30 PM JST		
LIC2-2	Laser driven ion acceleration for heavy ion cancer therapy (Invited) *Kiminori Kondo ¹ , Michiaki Morit ¹ , Dinh Tanh Hung ¹ , Noboru Hasegawa ¹ , Masaharu Nishikino ¹ , Kotaro Kondo ¹ , Akira Kon ¹ , Nicholas Dover ¹ , Hazel Frances Lowe ¹ , Hiromitsu Kiriyama ¹ , Mamiko Nishiuchi ¹ , Hironao Sakaki ¹ , Toshiyuki Shirai ² 1.KPSI, National Institutes for Quantum and Radiological Science and Technology, 2.NIRS, National Institutes for Quantum and Radiological Science and Technology	
4:30 PM - 5:00 PM JST		
LIC2-3	Security screening system with an injection-seeded terahertz-wave parametric generator (Invited) *Hiroaki Minamide ¹ , Kouji Nawata ¹ , Yuma Takida ¹ 1.Tera-Photonics Research Team, RIKEN Center for Advanced Photonics (RAP), RIKEN	
5:00 PM - 5:30 PM JST		
LIC2-4	Terahertz wave parametric amplification using LiNbO₃ crystal pumped by the microchip Nd:YAG laser (Invited) *Kosuke Murate ¹ , Yunzhuo Guo ¹ , Hikaru Sakai ¹ , Kodo Kawase ¹ 1.Nagoya University	
Wed. Apr 24, 2019		
[LIC3] Compact laser sources Wed. Apr 24, 2019 9:00 AM - 10:30 AM JST Pacifco Yokohama Conference Center(302) Session Chair: Hideki Ishizuki (RIKEN)		
9:00 AM - 9:30 AM JST		
LIC3-1	(Tentative) Compact high power Yb laser (Invited) *Mitsuhiro Yoshida 1.High Energy Accelerator Research Organization	
9:30 AM - 9:45 AM JST		
LIC3-2	Gain Aperture study in high-gain conditions for high-energy micro-MOPA *Vincent Yahia ¹ , Takunori Taira ^{1,2} 1.Institute for Molecular Science, 2.RIKEN Spring-8 Center	
9:45 AM - 10:00 AM JST		
LIC3-3	100 Hz repetition rate, 190 mJ and 10 PW/sr/cm² class Micro-MOPA *Taisuke Kawasaki ^{1,2} , Vincent Yahia ¹ , Takunori Taira ^{1,3} 1.Institute for Molecular Science, 2.Toshiba, 3.RIKEN SPring-8 Center	
10:00 AM - 10:30 AM JST		
LIC3-4	High rep-rate laser aided diagnostics for fusion plasma (Invited) *Ryo Yasuhara ¹ 1.National Institute for Fusion Science	
<Break> 10:30 AM - 11:00 AM JST		
[LIC4] Laser ignition strategy Wed. Apr 24, 2019 11:00 AM - 12:00 PM JST Pacifco Yokohama Conference Center(302) Session Chair: Takeshi Saito (Meisei Univ.)		
11:00 AM - 11:30 AM JST		
LIC4-1	Ignition strategy for post MIE transition regime toward super lean burn application (Invited) *Kaoru Maruta ¹ , Kodai Uesugui ¹ , Youhi Morii ¹ , Taichi Mukoyama ¹ , Takuya Tezuka ¹ , Hisashi Nakamura ¹ 1.Institute of Fluid Science, Tohoku University	
11:30 AM - 11:45 AM JST		
LIC4-2	Dual-Pulse Laser-Induced Spark Ignition in a Flowing Environment *Lydia Wermerr ¹ , Joseph K Lefkowitz ² , Timothy Ombrello ³ , Seong-kyun Im ¹ 1.University of Notre Dame, 2.Technion – Israel Institute of Technology, 3.United States Air Force Research Laboratory	
11:45 AM - 12:00 PM JST		
LIC4-3	Deflagration-to-Detonation Transition in Explosive Gas Ignited by Laser in a Smooth-Wall Cylindrical Tube Takuma Endo ¹ , *Shimon Kuwajima ¹ , Kazuki Okada ¹ , Wookyung Kim ¹ , Tomoyuki Johzaki ¹ , Daisuke Shimokuri ¹ , Akira Miyoshi ¹ , Shin-ichi Namba ¹ 1.Hiroshima University	
<Lunch> 12:00 PM - 1:15 PM JST		
[LIC5] Laser induced breakdown and spectroscopy Wed. Apr 24, 2019 1:15 PM - 3:15 PM JST Pacifco Yokohama Conference Center(302) Session Chair: Yoichi Sato (RIKEN)		
1:15 PM - 1:45 PM JST		
LIC5-1	Sensitivity Analysis of n-LIBS for Fuel Air Ratio Measurements (Invited) *Brendan McGann ¹ , Tonghun Lee ¹ , Timothy Ombrello ² , Campbell D. Carter ² , Stephen D. Hammack ² , Lydia Wermers ³ , Hyungrok Do ⁴ 1.University of Illinois at Urbana-Champaign, 2.U.S. Air Force Research Laboratory, 3.University of Notre Dame, 4.Seoul National University	
1:45 PM - 2:00 PM JST		
LIC5-2	Dual-Pulse Laser-Induced Breakdown Formation in Air at Elevated Pressure *Lydia Wermerr ¹ , Seong-kyun Im ¹ 1.University of Notre Dame	
2:00 PM - 2:30 PM JST		
LIC5-3	Mechanism of pulse-width scaling law of laser induced breakdown threshold in air (Invited) *Hwan Hong Lim ¹ , Takunori Taira ^{1,2} 1.Institute for Molecular Science, 2.RIKEN SPring-8 Center	
2:30 PM - 2:45 PM JST		
LIC5-4	Laser ignition window cleaning using surface dielectric barrier discharge *Eiichi Takahashi ¹ , Takehiko Segawa ¹ 1.National Institute of Advanced Industrial Science and Technology (AIST)	
2:45 PM - 3:15 PM JST		
LIC5-5	Non-separation, Direct and In situ Remote Analysis for Surveillance and Characterization of Nuclear Debris in Decommissioning of Fukushima Daiichi Nuclear Power Station by Fiber-Optic Laser Induced breakdown Spectroscopy (Invited) *Ikuo Wakaida ¹ , Hironori Ohba ^{2,1} , Koji Tamura ^{2,1} , Katsuki Akaoka ¹ , Masaki Oba ¹ , Masabumi Miyabe ¹ , Hwan Hong Lim ³ , Takunori Taira ³ 1.Japan Atomic Energy Agency, 2.National Institutes for Quantum and Radiological Science and Technology, 3.National Institute of Natural Science	
<Break> 3:15 PM - 3:30 PM JST		
[LIC6] Advanced laser processing Wed. Apr 24, 2019 3:30 PM - 5:30 PM JST Pacifco Yokohama Conference Center(302) Session Chair: Yuji Sano (ImPACT)		
3:30 PM - 4:00 PM JST		
LIC6-1	Smart laser additive manufacturing with IR and blue diode lasers (Invited) *Masahiro Tsukamoto ¹ 1.Joining and Welding Research Institute, Osaka University	
4:00 PM - 4:15 PM JST		
LIC6-2	Tiny integrated laser for robot arm mounting *Arvydas Kausas ¹ , Lihe Zheng ¹ , Takunori Taira ^{1,2} 1.Center for Mesoscopic sciences, Institute for Molecular Science, Japan, 2.RIKEN, Harima branch, Japan	
4:15 PM - 4:45 PM JST		
LIC6-3	Dry Laser Peening for Improving Fatigue Properties of Laser Welded 2024-T3 Aluminum Alloy using Femtosecond Laser Pulses (Invited) *Tomokazu Sano ¹ , Takayuki Eimura ¹ , Akio Hirose ¹ , Yosuke Kawahito ² , Seiji Katayama ² , Kazuto Arakawa ³ , Ayumi Shiro ⁴ , Takahisa Shobus ⁵ , Kiyotaka Masaki ⁶ , Yuji Sano ⁷ 1.Osaka University, Graduate School of Engineering, 2.Osaka University, Joining and Welding Research Institute, 3.Shimane University, 4.National Institute for Quantum and Radiological Science and Technology, 5.Japan Atomic Energy Agency, 6.National Institute of Technology, Okinawa College, 7.ImPACT	
4:45 PM - 5:00 PM JST		
LIC6-4	Dependence of pulse-width and pulse-number on LIPSS formation by ultra-short pulse laser irradiation *Reina Miyagawa ¹ , Shusuke Yoshikawa ¹ , Hwan Hong Lim ² , Takunori Taira ^{2,3} , Osamu Eryu ¹ 1.Nagoya Institute of Technology, 2.Institute of Molecular Science, 3.RIKEN SPring-8 Center	
5:00 PM - 5:30 PM JST		
LIC6-5	Laser ultrasonic system using microchip laser for in-situ detection of weld defect (Invited) *Satoru Asai ¹ , Kazufumi Nomura ¹ , Taketo Matsuida ¹ , Satoshi Otaki ¹ 1.Graduate school of engineering, Osaka University	
<Break> 5:30 PM - 6:00 PM JST		
<OPIC Reception Ballroom, 3rd floor InterContinental Yokohama Grand> 6:00 PM - 8:00 PM JST		
Thu. Apr 25, 2019		
[LIC7] Social implements of compact power lasers Thu. Apr 25, 2019 9:00 AM - 10:30 AM JST Pacifco Yokohama Conference Center(302) Session Chair: Takunori Taira (RIKEN)		
9:00 AM - 9:30 AM JST		
LIC7-1	Realization and social implementation of ubiquitous power lasers (Invited) *Yuji Sano ¹ 1.ImPACT, Japan Science and Technology Agency	
9:30 AM - 9:45 AM JST		
LIC7-2	The "Golden" Laser Spark Plug Assembly Process *Pol Ribes-Pleguezuelo ¹ , Erik Becker ¹ , Christoph Damm ¹ , Axel Bodemann ¹ , Ramona Eberhardt ¹ , Andreas Tunnermann ¹ , Nicolae Pavel ² , Oana-Valeria Grigore ² , Gabriela Croitoru ² , Catalina-Alice Branduzi ² , Nicolae-Tiberius Vasile ² 1.Fraunhofer Institute for Applied Optics and Precision Engineering IOF, 2.National Institute for Laser, Plasma and Radiation Physics, Laboratory of Solid-State Quantum Electronics Romania	
9:45 AM - 9:57 AM JST		
Short presentations	LIC7-3	Sub-nanosecond microchip laser for ophthalmology *Naoki Yoshida ¹ , Jun Suzuki ¹ , Shungo Araki ¹ , Muneyuki Adachi ¹ , Kazunobu Kojima ¹ , Masaaki Hanebuchi ¹ 1.NIDEK Co., Ltd.
	LIC7-4	Development of mJ-class compact microchip lasers for industrial and commercial applications *Yuichi Takushima ¹ , Tadashi Hajikano ¹ , Hiroshi Tsuboyai ¹ , Shota Sekiguchi ¹ , Masanori Tone ¹ 1.Optoquest Co., Ltd.
	LIC7-5	Microchip laser aiming at application to various processing applications *Tsuyoshi Nagata ¹ , Taishi Ogata ¹ , Toshiyuki Okada ¹ 1.Panasonic Production Engineering
	LIC7-6	Laser surgery *Kazunori Takahashi ¹ 1.UNITAC
<Break> 10:30 AM - 11:00 AM JST		
[LICp] LIC Poster session Thu. Apr 25, 2019 10:30 AM - 12:00 PM JST Pacifco Yokohama Exhibition Hall(Hall A)		
Posters with short presentations	LICp-1	Sub-nanosecond microchip laser for ophthalmology *Naoki Yoshida ¹ , Jun Suzuki ¹ , Shungo Araki ¹ , Muneyuki Adachi ¹ , Kazunobu Kojima ¹ , Masaaki Hanebuchi ¹ 1.NIDEK Co., Ltd.
	LICp-2	Development of mJ-class compact microchip lasers for industrial and commercial applications *Yuichi Takushima ¹ , Tadashi Hajikano ¹ , Hiroshi Tsuboyai ¹ , Shota Sekiguchi ¹ , Masanori Tone ¹ 1.Optoquest Co., Ltd.
	LICp-3	Microchip laser aiming at application to various processing applications *Tsuyoshi Nagata ¹ , Taishi Ogata ¹ , Toshiyuki Okada ¹ 1.Panasonic Production Engineering
	LICp-4	Laser surgery *Kazunori Takahashi ¹ 1.UNITAC
LICp-5	Interferometric imaging of laser initiated spark kernel *Sreenath B Gupta ¹ , Benjamin Akh-Kumgeh ² 1.Argonne National Laboratory, 2.Syracuse University	
LICp-6	Influence of fuel on laser breakdown-assisted long-distance discharge ignition (LBALDI) *Hiroki Koide ² , Shun Sakamoto ² , Kazuya Iwata ² , Osamu Imamura ² , Yasunori Ohkuma ² , Hiroshi Yamasaki ² , Hirohide Furutani ¹ , Eiichi Takahashi ¹ , Kazuhiro Akihamaz ¹ 1.National Institute of Advanced Industrial Science and Technology (AIST), 2.Nihon University	
LICp-7	[Withdrawn]	
LICp-8	QPM-structured quartz for intense-laser pumped 266 nm generation *Hideki Ishizuki ^{1,2} , Takunori Taira ^{1,2} 1.Institute for Molecular Science, 2.RIKEN SPring-8 Center	
LICp-9	Saturable absorption in Cr⁴⁺ YAG ceramics *Yoichi Sato ^{1,2} , Takunori Taira ^{1,2} 1.Institute for Molecular Science, 2.RIKEN SPring-8 Center	
<Lunch> 12:00 PM - 1:15 PM JST		
[LIC8] Laser ignition and accompanied processes Thu. Apr 25, 2019 1:30 PM - 3:00 PM JST Pacifco Yokohama Conference Center(302) Session Chair: Takuma Endo (Hiroshima Univ.)		
1:30 PM - 2:00 PM JST		
LIC8-1	Modeling of evolution from ignition kernel to planar flame with minimum energy transition in turbulent premixed flame (Invited) *Tsukasa Hori ¹ 1.Osaka University	
2:00 PM - 2:15 PM JST		
LIC8-2	Laser-induced spark ignition of premixed lean CH₄/air and CH₄/H₂/air mixture Erjiang Hui ¹ , *Shihan Huang ¹ , Qunfei Gao ¹ , Xiaotian Li ¹ , Jinfeng Ku ¹ , Zuohua Huang ¹ 1.Xi'an Jiaotong University	
2:15 PM - 2:45 PM JST		
LIC8-3	Mixing Inverse-Bremsstrahlung photon absorption for measurements in flammable mixtures (Invited) *Hyungrok Do ¹ , Sungkyun Oh ¹ , and Sangeun Bae ¹ 1.Seoul National University	
2:45 PM - 3:00 PM JST		
LIC8-4	Measurements of temperature using acoustic waves from laser-induced breakdowns *Moon Soo Bak ¹ , Jungwon Lee ¹ , Cheolwoo Bong ¹ 1.Sungkyunkwan University	
<Break> 3:15 PM - 3:30 PM JST		
[LIC9] Laser damage and ablation Thu. Apr 25, 2019 3:30 PM - 5:30 PM JST Pacifco Yokohama Conference Center(302) Session Chair: Yoichi Sato (RIKEN)		
3:30 PM - 4:00 PM JST		
LIC9-1	Laser-induced damage for optical devices (Invited) *Shinji Motokoshi ¹ , Kana Fujikawa ² , Masashi Yoshimura ² , Takahisa Jitsuno ² 1.Institute for Laser Technology, 2.ILE, Osaka University	
4:00 PM - 4:15 PM JST		
LIC9-2	Laser ablation in liquid on pyrite for the generation of iron complexes *Yuka Motohashi ¹ , Yumi Yakiyama ¹ , Hidehiro Sakurai ¹ 1.Osaka University	
4:15 PM - 4:30 PM JST		
LIC9-3	Double pulse laser driven flyer *Deshen Geng ¹ , Lang Chen ¹ , Jianying Lu ¹ , Junying Wu ¹ 1.Beijing Institute of Technology	
4:30 PM - 5:00 PM JST		
LIC9-4	Cleaning of liquid droplet on metal by explosive vaporization at solid-liquid interface *Naotada Okada ¹ , Tetsuo Sakai ¹ , Shinji Okuma ¹ 1.Corporate Manufacturing Engineering Center, Toshiba Corp.	
5:00 PM - 5:30 PM JST		
Closing Remarks		